

Riparian Buffers in North Carolina

Coleen H. Sullins, Director
Division of Water Quality

What is a Riparian Buffer?

- A riparian buffer is a strip of forested or vegetated land bordering a body of water

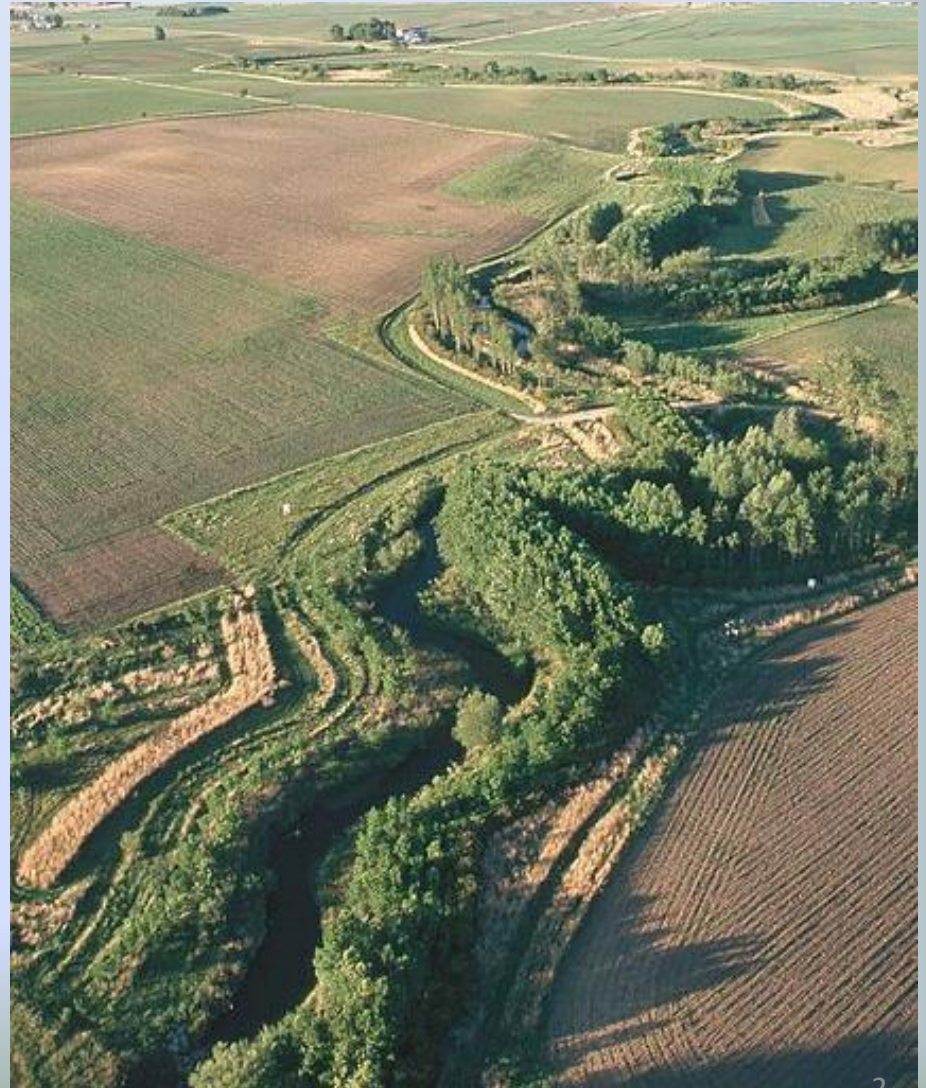












Photo courtesy of NCDENR

N.C. General Assembly took action

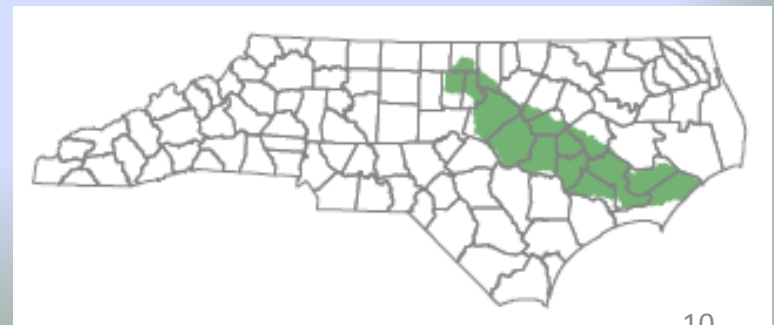
June 19, 1996

- SL 1995-572
 - Directed the Environmental Management Commission (EMC) to develop a plan to reduce the average annual load of nitrogen to the Neuse River Estuary by 30%



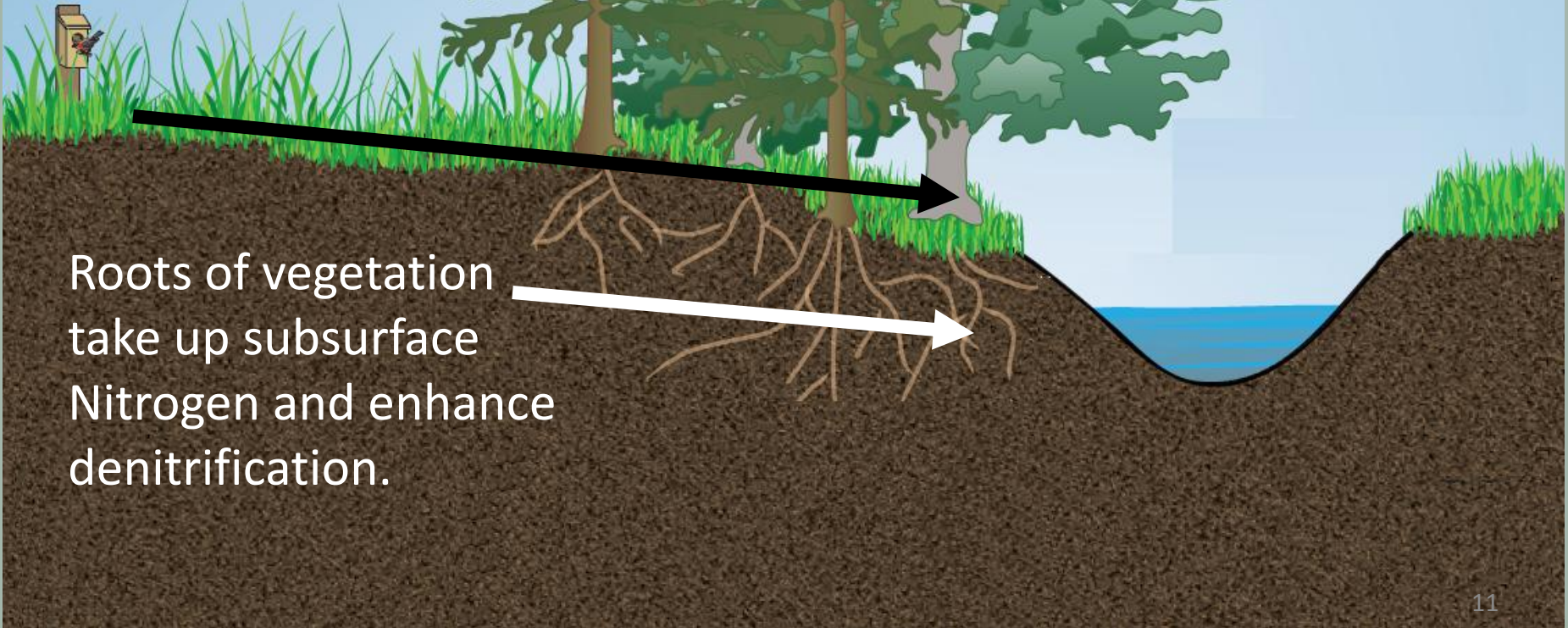
Neuse Management Strategy

- The EMC adopted the Neuse River Basin - Nutrient Sensitive Waters Management Strategy for:
 - **protection and maintenance of riparian areas**
 - wastewater discharges
 - urban stormwater management
 - agricultural nitrogen reduction
 - fertilizer management
 - nitrogen offset fees



How do Riparian Buffers Work?

Vegetation slows and filters pollutants in surface runoff



Roots of vegetation take up subsurface Nitrogen and enhance denitrification.

How do Riparian Buffers Work?

- Studies show that the first 50 feet adjacent to a water body provide the highest proportion of water quality benefits



Buffer Benefits

- Remove nutrients
- Filter stormwater runoff



Buffer Benefits



Flood control



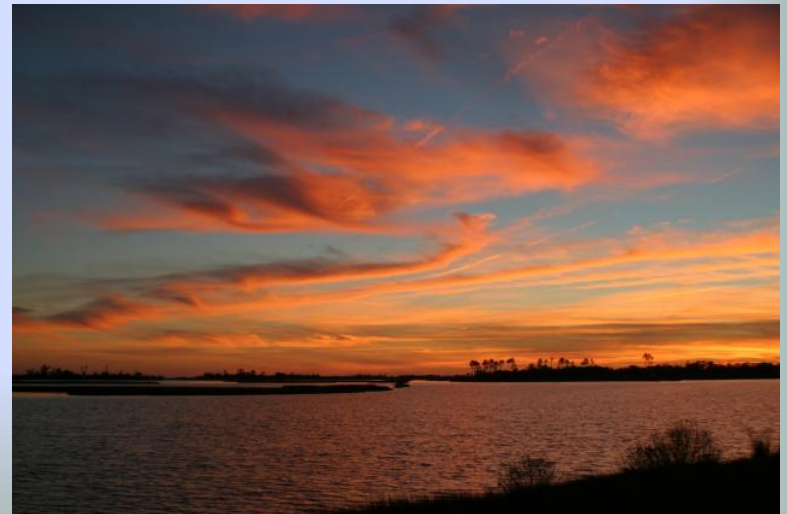
Prevent erosion



Provide fish & wildlife habitat

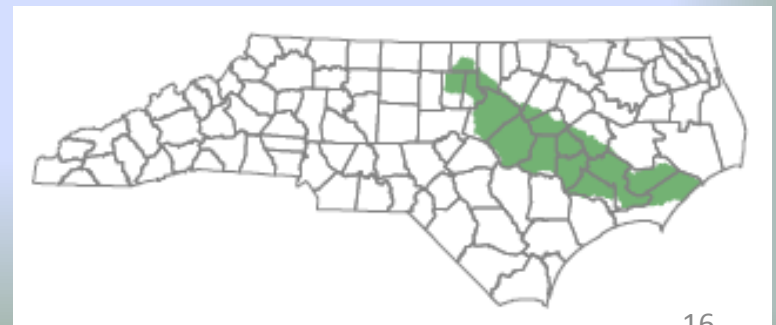
Buffer Benefits

- A study done in Craven County found that waterfront property commands a higher premium compared to an otherwise equivalent property
- The study also found that the mandatory riparian buffer rules did not lower waterfront property values

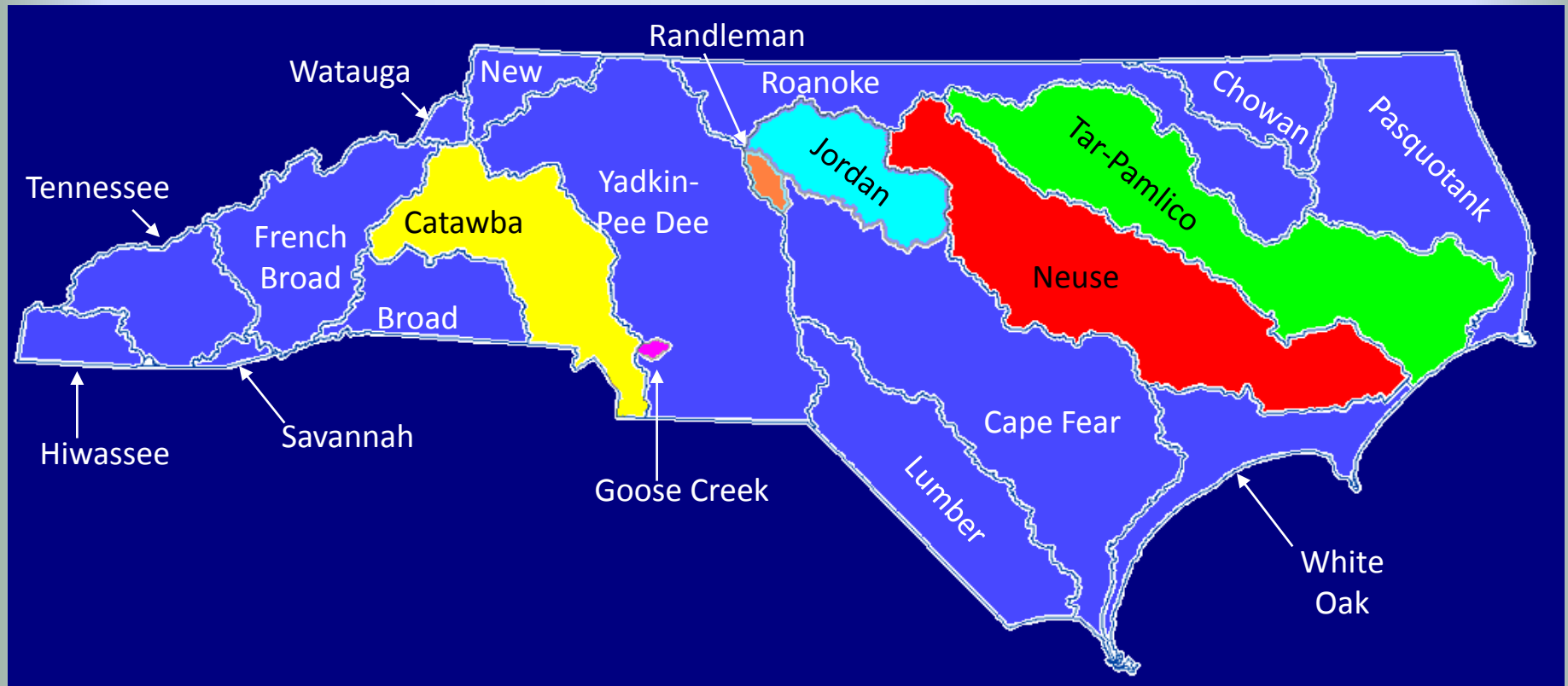







Neuse Riparian Buffer Rules

- Initial rules adopted in July 22, 1997
 - Main purpose: **protect existing stream buffers**
- Revised rules
 - SL 1998-221: Stakeholder Advisory Committee
 - June 1999: Revised rules adopted by EMC



North Carolina Riparian Buffer Rules



- | | |
|---|--|
|  Neuse River Basin
(Jul. 22, 1997/ Aug. 1, 2000) |  Catawba River Basin (Jun. 30, 2001) |
|  Randleman Lake Watershed
(Apr. 1, 1999/Jun. 1, 2010) |  Goose Creek Watershed (Feb. 1, 2009) |
|  Tar-Pamlico River Basin (Aug. 1, 2000) |  Jordan Lake Watershed (Aug. 1, 2009) |

The Benefits are Crystal Clear

- Riparian buffers provide many benefits
 - Remove nutrients
 - Filter stormwater runoff
 - Provide flood control
 - Prevent erosion / protect investment
 - Provide fish and wildlife habitat
 - Protect tourism industry
- Riparian buffer protection rules are part of comprehensive strategies to address water quality issues



Jordan Lake - August 2005



Phelps Lake - July 2005¹⁸

